ABSTRACT OF THE DISCLOSURE

Image data which includes a plurality of object unit image data arranged in time series, such as field images, is supplied from an image source. The object unit image data subjected to the smoothing process is divided into blocks of a predetermined size. Then, a difference between the object unit image data and preceding unit image data which is immediately before the object unit image data, and a difference between the object unit image data and subsequent unit image data which is immediately after the object unit image data are determined for a plurality of blocks, based on a pixel value. The object unit image data is smoothed with one of the preceding unit image data and the subsequent unit image data having a smaller difference. Thus, since the object unit image data is always smoothed with the unit image data having the smallest difference, effective noise elimination can be performed, with preventing an adverse effect caused by the smoothing.